



MICCAI-Grid Workshop - Call for papers

Medical imaging on GRID, HPC and GPU Infrastructures Interoperability Highlights on NeuroSciences

Medical image processing raises new challenges related to the scale and complexity of the required analyses, for example in studies that involve the federation of large data sets or in complex modelling and data mining. Grid and HPC technologies are addressing such problems by syndicating computing resources and providing tools for exploiting them, while additionally serving as vectors for structuring user communities. On a different scale but similarly, GPU-based processing is gaining more attention given its immediate benefits to users and close integration in imaging environments and practices.

In the medical imaging area, Grids provide a foundational layer that can be utilized *e.g.*, to build patient specific models, reduce computing time to meet clinical practice constraints, algorithms validation and optimization, or collaborative studies on rare diseases. Specific Grid initiatives are thus emerging worldwide, demonstrating a growing interest from the health community for such infrastructures and impacting on the way medical research is conducted. However, deploying medical image analysis applications on such infrastructures requires a proper understanding of the specific needs in this area.

The MICCAI-Grid workshop aims at bringing together researchers using Grid, HPC and GPU infrastructures to address problems in medical image processing. The scientific objectives are both to demonstrate the current achievements of Grid, HPC and GPU technologies within the community through concrete examples and to precisely identify the fundamental problems limiting the adoption of existing systems and their interconnections from both a data and algorithms interoperability angle.

Paper Submission

We kindly invite you to submit original papers addressing one or more topics from the following list:

- Medical image processing using Grid, HPC and / or GPU infrastructures,
- Medical image pipelines / workflows, from authoring, to planning and enactment on Grid, HPC and / or GPUs,
- Distributed and heterogeneous medical data representation and annotation,
- Large scale and statistical studies,
- Content-based retrieval and data mining,
- Methods evaluation and parameter sweep studies,
- Medical data visualization using Grid, HPC and / or GPU resources,
- Dedicated Grid, HPC, GPU infrastructures,

- Standards for exchanging data and algorithms,
- Success stories and show stoppers.

Please submit papers of up to **10 pages** until **June 5th** following the format and instructions provided at:

<http://proton.polytech.unice.fr/MICCAI-Grid/>

Important Dates

- Workshop venue **September 24, 2009**
- Deadline for submission **June 5, 2009**
- Acceptance notification **July 10, 2009**
- Camera ready **August 30, 2009**

Program Committee

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